

Section 10–1 Cell Growth (pages 241–243)



Key Concept

- What problems does growth cause for cells?

Limits to Cell Growth (pages 241–243)

1. What are two reasons why cells divide rather than continue to grow indefinitely?
 - a. _____

 - b. _____

2. Is the following sentence true or false? As a cell increases in size, it usually makes extra copies of its DNA. _____
3. Circle the letter of what determines the rate at which food and oxygen in a cell are used up and waste products produced.
 - a. The cell's organelles
 - b. The cell's volume
 - c. The cell's location
 - d. The cell's DNA
4. How can you obtain a cell's ratio of surface area to volume? _____

5. If a cell's surface area is 6 cm^2 and its volume is 1 cm^3 , then what is its ratio of surface area to volume? _____
6. Is the following sentence true or false? As a cell grows in size, its volume increases much more rapidly than its surface area. _____
7. Circle the letter of what happens to a cell's ratio of surface area to volume as the cell's volume increases more rapidly than its surface area.
 - a. The ratio decreases.
 - b. The ratio increases.
 - c. The ratio remains the same.
 - d. The ratio disappears.

Division of the Cell (page 243)

8. What is cell division? _____

9. How does cell division solve the problem of increasing size? _____

